

Attorney's Docket No. N.C. 96,298

Application No. 10/825,798

Page 2

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Cancelled)
2. (Currently Amended) A mechanical assembly machine for deploying a truss boom, as ~~claimed in claim 1~~, further comprising:
 - a drum;
 - a stowed flattened truss boom rolled into a coil around the drum;
 - means for unrolling the coil;
 - an actuating and locking mechanism which holds a leading edge of the truss boom and includes an upper plate, a lower plate, diagonal tensioners, and oscillating longeron clamps; and
 - a control arm which connects the actuating and locking mechanism to the drum;
 - wherein the actuating and locking mechanism deploys a mechanically actuated truss boom by feeding out the leading edge and then mechanically expanding and locking the truss boom while the truss boom is unrolled.
3. (Currently Amended) A mechanical assembly machine as claimed in claim ~~[[1]]~~ 2, wherein the actuating and locking mechanism includes a heating means, and the heating means restores a truss boom having longerons which have been flattened to a ribbon shape for stowage to their original corrugated cross section during deployment.

Attorney's Docket No. N.C. 96,298

Application No. 10/825,798

Page 3

4. (Original) A mechanical assembly machine as claimed in claim 3, wherein the heating means straightens a truss boom having longerons with folded expansion joints during deployment.
5. (Withdrawn from Consideration) A method for stowing an elongated truss boom comprising:
- compressing the truss boom laterally into an elongated flat structure;
 - rolling the flat structure into a coil; and
 - unrolling and expanding the truss boom into an elongated three dimensional structure.
6. (Withdrawn from Consideration) The method for stowing an elongated truss boom as claimed in claim 5, further comprising:
- heating a truss boom having longerons which have been flattened to a ribbon shape for stowage to restore their original corrugated cross section during deployment.
7. (Withdrawn from Consideration) The method for stowing an elongated truss boom as claimed in claim 5, further comprising:
- heating a truss boom having longerons with folded expansion joints to straighten the longerons during deployment.

Attorney's Docket No. N.C. 96,298

Application No. 10/825,798

Page 4

8. (New) A method for deploying a truss boom comprising:
- unrolling a coiled stowed flattened truss boom from around a drum, the drum being connected to an actuating and locking mechanism by a control arm;
- feeding out the leading edge and then mechanically expanding and locking the truss boom while the truss boom is unrolled;
- wherein said feeding out is accomplished with the actuating and locking mechanism which holds a leading edge of the truss boom and includes an upper plate, a lower plate, diagonal tensioners, and oscillating longeron clamps.
9. (New) A method according to claim 8, wherein the actuating and locking mechanism includes heating means, and the heating means restores a truss boom having longerons which have been flattened to a ribbon shape for stowage to their original corrugated cross section during deployment.
10. (New) A method according to claim 8, further comprising:
- compressing the truss boom laterally into an elongated flat structure; and
- rolling the flat structure into a coil.